IN THE CLAIMS:

Please cancel Claim 10, and amend Claims 1 to and 11 to 20, as shown below.

1. (Currently Amended) A ring laser gyro comprising:

a plurality of semiconductor ring lasers including at least first and second semiconductor ring lasers, said first and second semiconductor ~~two or more ring lasers,~~ ~~said~~ ring lasers being optically independent of each other, and each of said first and second semiconductor ring lasers having counterpropagating laser beams which generate a beat frequency in response to angular velocity;

wherein ~~wherein:~~ a change in beat frequency with respect to a change in angular velocity of said first ~~a first~~ semiconductor ring laser is opposite to that of said second ~~a second~~ semiconductor ring ~~laser;~~ laser, and

wherein angular velocity of rotation of said ring laser gyro is detected using ~~by~~ a signal representing a difference between a first beat frequency generated by said first semiconductor ring laser and a second beat frequency generated by said second semiconductor ring laser.

2. (Currently Amended) A ring laser gyro according to claim 1, wherein said beat frequency generated by said first semiconductor ring laser and said beat frequency generated by said second semiconductor ring laser in a static state are equal to each other, and the rate of said change in said beat frequency with respect to said change in said angular velocity of said first semiconductor ring laser is equal to that of said second semiconductor ring laser.

3. (Currently Amended) A ring laser gyro according to claim 1, wherein, when angular velocity in a direction is increased, frequency of an impedance change with respect to said first semiconductor ring laser is decreased, while frequency of an impedance change with respect to said second semiconductor ring laser is increased.

4. (Currently Amended) A ring laser gyro according to claim 1, wherein said ~~two~~ first and second semiconductor ring lasers each have ~~a tapered portion in a part of their respective~~ optical waveguides with a tapered portion therein,~~;~~

wherein said tapered portion is formed of a first portion where width of said optical waveguide becomes larger along a propagation direction of a clockwise laser beam and a second portion where width of said optical waveguide becomes smaller~~;~~ and,

wherein in said first semiconductor ring laser, said first portion is longer than said second portion, while, in said second semiconductor ring laser, said second portion is longer than said first portion.

5. (Currently Amended) A ring laser gyro according to any one of claims 1 to 4, wherein a ratio of an area surrounded by a resonator to the length of a revolution of said resonator in said first semiconductor ring laser is equal to that in said second semiconductor ring laser.

6. (Currently Amended) A ring laser gyro according to claim 1, wherein shapes of resonators of said first semiconductor ring laser and second semiconductor ring laser ~~lasers~~ are mirror images of each other.

7. (Currently Amended) A ring laser gyro according to claim 1, wherein said first and second semiconductor ring lasers are oriented on parallel planes ~~said planes~~ nonperpendicular to each other ~~are planes in parallel with each other~~.

8. (Currently Amended) A ring laser gyro according to claim 7, wherein said first and second semiconductor ring lasers are oriented on ~~planes in parallel with each other are~~ one plane.

9. (Currently Amended) A ring laser gyro according to claim 1, further comprising a substrate, wherein each of said first and second semiconductor ring lasers are formed on said substrate, and said substrate is a ~~planes nonperpendicular to each other, said planes in parallel with each other, or said one plane are/is surfaces/a surface of semiconductor substrates/a~~ semiconductor substrate.

10. (Cancelled)

11. (Currently Amended) A ring laser gyro according to claim 1, ~~wherein: said ring laser gyro~~ further comprising ~~comprises an absorber or~~ a light-shield for preventing optical coupling between said ~~two~~ first and second semiconductor ring lasers; ~~and~~

wherein said ~~absorber or said~~ light-shield does not return reflected light to said first and second semiconductor ring lasers.

12. (Currently Amended) A method of driving a ~~semiconductor gyro~~ ring laser gyro ~~according to claim 1, wherein~~ comprising:

operating a plurality of semiconductor ring lasers, including at least first and second semiconductor ring lasers, at constant current, said first and second semiconductor ring lasers being optically independent from each other, and each of said first and second ring lasers having counterpropagating laser beams which generate a beat frequency in response to angular velocity, wherein a change in beat frequency with respect to a change in angular velocity of said first semiconductor ring laser is opposite to that of said second semiconductor ring laser, wherein an angular velocity of rotation of said ring laser gyro is detected by a signal representing a difference between a first beat frequency generated by said first semiconductor ring laser and a second beat frequency generated by a second semiconductor ring laser; and

detecting a voltage change at electric terminals which are connected to each of said first and second semiconductor ring lasers

~~said two semiconductor ring lasers are respectively driven at constant current and a voltage change is detected from said electric terminals~~.

13. (Currently Amended) A method of driving a ~~semiconductor~~ ring laser gyro ~~according to claim 1, wherein~~ comprising:

operating a plurality of semiconductor ring lasers, including at least first and second semiconductor ring lasers, at constant voltage, said first and second semiconductor ring lasers being optically independent from each other, and each of said first and second ring lasers having counterpropagating laser beams which generate a beat frequency in response to angular velocity, wherein a change in beat frequency with respect to a change

in angular velocity of said first semiconductor ring laser is opposite to that of said second semiconductor ring laser, wherein an angular velocity of rotation of said ring laser gyro is detected by a signal representing a difference between a first beat frequency generated by said first semiconductor ring laser and a second beat frequency generated by a second semiconductor ring laser; and

detecting a drive current change at electric terminals which are connected to each of said first and second semiconductor ring lasers

~~said two semiconductor ring lasers are respectively driven at constant voltage and a change in drive current is detected from said electric terminals~~.

14. (Currently Amended) A method of driving a ring laser gyro according to claim 12 or 13, wherein current injected to or voltage applied to said first and second ~~two~~ semiconductor ring lasers is the same.

15. (Currently Amended) A method of processing a signal from a ring laser gyro ~~according to claim 1, wherein~~ comprising:

operating a plurality of semiconductor ring lasers, including at least first and second semiconductor ring lasers, said first and second semiconductor ring lasers being optically independent from each other, and each of said first and second ring lasers having counterpropagating laser beams which generate a beat frequency in response to angular velocity, wherein a change in beat frequency with respect to a change in angular velocity of said first semiconductor ring laser is opposite to that of said second semiconductor ring laser, wherein an angular velocity of rotation of said ring laser gyro is detected by a signal representing a difference between a first beat frequency generated by said first

semiconductor ring laser and a second beat frequency generated by a second semiconductor ring laser; and

detecting angular velocity and rotational direction of said ring laser gyro on the basis of an impedance change in said first and second semiconductor ring lasers

~~calculating processing is carried on the basis of said frequency of said impedance change in said two respective semiconductor ring lasers to obtain said angular velocity and rotational direction~~.

16. (Currently Amended) A method of processing a signal from a ring laser gyro according to claim 15, wherein said step of detecting angular velocity and rotational direction of said ring laser gyro uses subtraction or negatively weighted average operations ~~said operation is subtraction or negatively weighted average~~.

17. (Currently Amended) A method of processing a signal from a ring laser gyro according to claim 16, wherein ~~said~~ a weight ~~corresponds~~ corresponding to a ratio of the ~~said~~ beat frequencies ~~in said static state~~ in said plurality of semiconductor ring lasers in a static state, is used in a negatively weighted average operation.

18. (Currently Amended) A method of processing a signal from a ring laser gyro according to claim 16, ~~wherein a ring laser gyro according to claim 1 is driven,~~ further comprising:

calculating angular velocity and rotational direction of said ring laser gyro on the basis of an impedance change in said plurality of semiconductor ring lasers; and

controlling drive conditions based on said calculated angular velocity and rotation direction

~~said calculating processing is carried out based on said frequencies of said impedance change in said respective semiconductor ring lasers, and~~

~~drive conditions are controlled using the result of said calculating processing~~.

19. (Currently Amended) A method of processing a signal from a ring laser gyro according to claim 18, wherein said step of calculating angular velocity and rotational direction of said ring laser gyro uses addition or weighted average operations ~~said calculating processing is addition or weighted average~~.

20. (Currently Amended) A method of processing a signal from a ring laser gyro according to claim 19, wherein a ~~said~~ weight corresponding ~~in said weighted average corresponds~~ to a ratio of length of a revolution of each of said semiconductor ring lasers ~~resonator~~ to area surrounded by each of said plurality of semiconductor ring lasers ~~resonator between said respective ring resonators~~, is used in a weighted average operation.